

## REMARKS

The Office Action has maintained the restriction requirement and has withdrawn claim 64. In addition, the Office Action has objected to the specification. In addition, it has requested legible copies of references B02-B06 in the Information Disclosure Statement dated December 23, 2004. The Office Action has rejected claims 42, 29 and 53 under 35 U.S.C. § 112, first paragraph, for allegedly being non-enabling. Further, the Office Action has rejected Claims 6 and 42 under 35 U.S.C. § 112, second paragraph, as allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Further, the Office Action has rejected Claims 6, 42, 43, 44 and 51 under 35 U.S.C. § 102(b) as defining subject matter which is allegedly anticipated by the teaching of an article by Chaiyabutr et al. in J Med Ass Thailand, 1985, 68, 12, 649-653 (hereinafter referred to as "Chaiyabutr et al."). Claims 13, 45, 48, 49, 53, 54, 57, 58 and 63 are rejected under 35 U.S.C. §103(a) as defining subject matter which is allegedly rendered obvious by the teachings of Chaiyabutr et al. in view of an article by Who in The Indian Journal of Pediatrics, 1989, 56, 4, 545-548 ("Who") and further in view of the teachings of US Patent No. 4,981,844 to Alexander et al. ("Alexander et al.") and further in view of US Patent No. 5,545,670 to Bissbort et al. ("Bissbort et al."). Further, Claims 50 and 59-62 are rejected as defining subject matter which is allegedly rendered obvious by the teachings in Chaiyabutr et al. and Who, and further in view of Alexander et al. and further in view of Bissbort et al. and further in view of the teachings in US Patent No. 5,561,164 to Gutteridge et al. ("Gutteridge et al."). Claims 46 and 47 are rejected under 35 USC § 103(a) as defining subject matter which is allegedly unpatentable over Chaiyabutr et al. Moreover, Claims 55 and 56 are rejected under 35 U.S.C. §103(a) as defining subject matter which is allegedly rendered obvious by the teachings of Chaiyabutr et al. in view of Who and in further view of Alexander et al. and

in further view of Bissbort et al. and in further view of the teachings in WO 95/31199 to which Legakis is an inventor. Finally, claim 52 is rejected under 35 U.S.C. § 103(a) as defining subject matter which is allegedly rendered obvious by the teachings in Chaiyabutr et al. in view of Who and in further view of Alexander et al., Bissbort et al. and in further view of the teachings of US Patent No. 3,574,814 to Gross et al ("Gross et al.").

Applicants have amended the claims, which when considered with the comments hereinbelow, are deemed to place the present case in condition for allowance. Favorable action is respectfully requested.

At the outset, before addressing the issues raised in the Office Action, it is to be noted that Applicants have amended Claims 6 to recite a composition comprising an amount of phanquinone effective to treat Alzheimer's disease and a mixture of clioquinol and vitamin B<sub>12</sub> and an acetylcholine enhancer. Claim 6 incorporates the subject matter of original Claims 13 and 46 and Page 7, Lines 21-32 of the instant specification. Applicants have amended the remaining dependent claims to be consistent therewith and have changed the dependency of the claims to be ultimately dependent on Claim 6.

Claims 13, 42, 48 and 49 have been cancelled without prejudice. Applicants have not abandoned the subject matter therein and reserve the right to file a continuation application thereto. In addition, Applicants have amended Claims 53 to remove the words "prevention of" Alzheimer's disease recited therein. Applicants have not abandoned the subject matter therein and reserve the right to file a continuation application directed thereto.

No new matter has been added to the application.

The Office Action ha alleged that the Information Disclosure Statement filed on December 23, 2004 did not comply with 37 C.F.R. § 1.98 (a)(2), because Applicants failed to

provide a legible copy of the foreign patent documents of References B02-B06. Applicants are providing another copy of the abovementioned references.

The Office Action has objected to the disclosure for the phraseology " $\mu$ 1 agonists". This is a typographical error, and Applicants have amended the specification to delete " $\mu$ 1" before the word agonists. Applicants have also corrected a grammatical error on Page 5, Line 6 of the instant specification. No new matter has been added to the application.

Pursuant to the rejection of Claims 42 and 53, the Office Action alleges that the application is not enabling for preventing Alzheimer's disease. Applicants disagree. The use of the term "preventing Alzheimer's disease" refers to a method of use. The present application, as examined, does not contain any method of use claims; the claims are directed to compositions of matter, and not a method of use. Furthermore, as stated in the Office Action "the intended use does not get patentable weight in composition claims". Thus, this rejection is improper. Nevertheless, Applicants have amended Claims 6 and 53 to recite that the phanquinone is present in effective amounts to treat Alzheimer's disease. As amended the claims do not recite preventing Alzheimer's disease.

Thus, this rejection is overcome and withdrawal thereof is respectfully requested.

Pursuant to the rejection of Claims 6 and 42 under 35 U.S.C. § 112, second paragraph, the Office Action alleges that the term "prosthetic group" is not clear.

Applicants have identified the prosthetic group in the claimed subject matter, pursuant to the restriction requirement. More specifically, the term "prosthetic group" has been written as vitamin B<sub>12</sub>, in accordance with the election from the restriction requirement. Thus, this rejection is moot. Withdrawal of this rejection is respectfully requested.

Pursuant to the rejection of Claims 6, 42, 43, 44 and 51 under 35 U.S.C. §102(b) the Office Action cites Chaiyabutr et al.

As indicated in the Office Action Chaiyabutr et al. disclose an anti-diarrheal drug containing a combination of clioquinol, phanquinone and oxyphenonium bromide.

This composition differs in many respects from the present invention. For example, the present composition contains vitamin B<sub>12</sub>. However, Chaiyabutr et al. does not teach or disclose a composition containing vitamin B<sub>12</sub>, a position with which the Office Action concurs (see Page 11 of Office Action). Moreover, contrary to the allegations in the Office Action, oxyphenonium bromide is not an acetylcholine enhancer. Attention is directed to Page 649 of Chaiyabutr et al. wherein oxyphenonium bromide is identified as a parasympatholytic agent. Applicants are enclosing an article by Fraser in Brit J. Ophteal, 1956, 40, 751-753, which lists various uses for oxyphenonium bromide. Attention is directed to Page 751 thereof which lists it having anticholinergic action. Applicants are enclosing a definition of parasympatholytic from the website <http://medical-dictionary.thefreedictionary.com/parasympatholytic> , which indicates that it is synonymous with anticholinergic. As defined by the medical dictionary, anticholinergic is defined as blocking the action of acetylcholine. Thus, quite the opposite, contrary to the allegation in the Office Action, oxyphenonium bromide is not an acetylcholine enhancer, but is the opposite, it blocks acetylcholine.

Since the claims contain subject matter that is not disclosed or taught explicitly or inherently in Chaiyabutr et al., the claims are not anticipated by the cited publication.

Consequently, the rejection of Claims 6, 43, 44 and 51 under 35 U.S.C. §102(b) is obviated. Withdrawal thereof is respectfully requested.

Pursuant to the rejection of Claims 45, 48, 49, 53, 54, 57, 58 and 63, under 35 U.S.C. §103, the Office Action cites Chaiyabutr et al. in combination with Who, Alexander et al and Bissbort et al.

Who discloses, inter alia, clinical management of persistent diarrhea in children. It refers to various ways to maintain child's hydration and nutritional status. They list various methods, including administration of ORS, complementary protein sources, complex carbohydrates, fats that are readily digestible, folate, zinc, iron, vitamin B<sub>12</sub>, vitamin A and other supplemental vitamins, animal milk, foods to give energy intake of 420-670 KJ/day, and antimicrobials and/or hospitalization.

Thus, vitamin B<sub>12</sub>, although listed, is listed among a variety of potential options.

Bissbort et al relate to the composition and treatment of myalgic encephalomyelitis known as chronic fatigue syndrome. The composition consists essentially of specific amounts of L-methionine, magnesium salts, folic acid, vitamin B<sub>6</sub> and vitamin B<sub>12</sub>.

Alexander et al teach that the immune response of a patient can be improved by altering the diet of a patient, such as providing vitamin E. It also lists that other vitamins can be administered, such as vitamin C, vitamin B<sub>12</sub>, calcium and magnesium.

Applicants respectfully submit that the Office Action has not made out a prima facie case of obviousness. As indicated hereinabove, Chaiyabutr et al. relate to the treatment of diarrheal disease and discusses the side effect. They experimented on dogs giving them clioquinol, phanquinone, oxyphenonium bromide and the results show that the dogs showed histopathological changes in the urinary bladder.

Who refers to means of combating various side effects with respect to the treatment of persistent diarrhea in children, such as maintaining the child's hydration, and nutritional status,

and minimizing intestinal damage. Vitamin B<sub>12</sub> is one of several methods for treating intestinal mucosal renewal and variety of immunological responses.

Alexander et al. and Bissbort et al. have nothing to do with the treatment of diarrheal disease, but refer to potential ways of enhancing the immune response.

It is respectfully submitted that the combination referred to by the Office Action teaches away from the present invention.

According to the Office Action the combination suggests a combination comprising phanquinone, clioquinol, oxyphenonium bromide and vitamin B<sub>12</sub>. However, since oxyphenonium bromide is a parasympatholytic agent which is the opposite of an acetylcholine enhancer, the combination teaches away from an acetylcholine enhancer being present. Thus, the combination teaches away from the present composition.

Thus, this rejection is overcome, withdrawal thereof is respectfully requested.

Pursuant to the rejection of Claims 50 and 59-62, under 35 U.S.C. §103, the Office Action cites Chaiyabutr et al., Who, Alexander et al., Bissbort et al. and Gutteridge et al.

Applicants reiterate the arguments hereinabove with respect to Chaiyabutr et al., Who, Alexander et al., and Bissbort et al.

Gutteridge et al. disclose a pharmaceutical composition for the treatment of infections that cause diarrhea. It may be given orally, topically, dermally rectally, etc. However, Gutteridge et al. do not overcome the shortcomings of the combination described hereinabove. According to the logic of the Office Action, the combination would suggest a pharmaceutical composition comprising phanquinone, clioquinol, oxyphenonium bromide, and vitamin B<sub>12</sub>. However, as indicated hereinabove, the combination suggested by the Office Action teaches away from the presence of acetylcholine enhancer in the composition since, according to the

Office Action, the combination of the references suggest a composition which contains oxyphenonium bromide, which is a parasympatholytic agent, which has the opposite effect of an acetylcholine enhancer. Thus, the combination teaches away from the claimed subject matter.

Accordingly, this rejection is obviated; withdrawal is respectfully requested.

Pursuant to the rejection of Claims 46 and 47, under 35 U.S.C. § 103, the Office Action cites Chaiyabutr et al. According to the Office Action, oxyphenonium bromide is an acetylcholine enhancer; and it concludes that it would be obvious to substitute the other acetylcholine enhancers such as tacrine and donepezil for it.

However, contrary to the allegations to the Office Action, oxyphenonium bromide is a parasympatholytic agent which is the opposite of an acetylcholine enhancer. Thus, Chaiyabutr et al. teach away from the subject matter of Claims 46 and 47. Thus, this rejection is overcome; withdrawal thereof is respectfully requested.

Pursuant to the rejection of Claims 55 and 56 under 35 U.S.C. §103(a), the Office Action cites Chaiyabutr et al., Who, Alexander et al., Bissbort et al. and further in view of the teachings of Legakis.

The Applicants reiterate the comments hereinabove with respect to Chaiyabutr et al., Who, Alexander et al. and Bissbort et al., the contents of which are incorporated by reference. As described hereinabove, for the reasons given, the combination of Chaiyabutr et al., Who, Alexander et al., and Bissbort et al. teach away from the claimed composition.

The Office Action is citing Legakis for its teaching of a method of treating Helicobacter infections which cause gastric diseases by administering clioquinol in amounts of 10-50 mg. It does not address the insufficiency described hereinabove.

Thus, according to the Office Action, the combination suggest a composition comprising phanquinone, clioquinol, where the amount of clioquinol is between 10-50 mg, vitamin B<sub>12</sub> and oxyphenonium bromide. But the latter compound is a parasympatholytic agent. Since parasympatholytic agents perform the opposite action of acetylcholine enhancers, this combination comprising phanquinone, clioquinol, vitamin B<sub>12</sub> and an acetylcholine enhancer, the subject matter of the rejected claims, is not taught, disclosed or suggested by the combination of references. Thus, this rejection is overcome; withdrawal thereof is respectfully requested.

Pursuant to the rejection of Claim 52, under 35 U.S.C. § 103, the Office Action cites Chaiyabutr et al., Who, Alexander et al., Bissbort et al. and Gross et al.

Applicants reiterate the comments hereinabove with respect to the combination of Chaiyabutr et al., Who, Alexander et al., and Bissbort et al. the contents of which are incorporated herein by reference.

The Office Action cites Gross et al. for allegedly teaching the combination of phanquinone and clioquinol for treating digestive disorders where the amount of clioquinol is from 80 to 120 mg and the amount of phanquinone is from 20 to 80 mg. Thus, Gross et al. do not address the deficiencies of the combination of Chaiyabutr et al., Who, Alexander et al., and Bissbort et al.


According to the Office Action, the combination of references would suggest a composition comprising phanquinone in the amount of 20 to 80 mg, clioquinol, vitamin B<sub>12</sub>, and oxyphenonium bromide, a parasympatholytic agent. Since a parasympatholytic agent performs in an opposite manner relative to an acetylcholine enhancer, the combination does not suggest and leads away from a composition comprising clioquinol, phanquinone, vitamin B<sub>12</sub> and an acetylcholine enhancer.



Thus, for this reason, the rejection of Claim 52 under 35 U.S.C. §103 is obviated;  
withdrawal thereof is respectfully requested.

Thus, in view of the Amendment to the Claims and the Remarks herein, it is respectfully  
submitted that the present case is in condition for allowance, which action is earnestly solicited.

Respectfully Submitted,

  
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